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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/754,491

01/09/2004

David W. Gohl

1847US01

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02/03/2009

ECOLAB INC.

MAIL STOP ESC-F7, 655 LONE OAK DRIVE

EAGAN, MN 55121

EXAMINER

DOUYON, LORNA M

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

02/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/754,491	Applicant(s) GOHL ET AL.	
	Examiner Lorna M. Douyon	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6,10,11,14-21 and 23-34 is/are pending in the application.
- 4a) Of the above claim(s) 23-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,10,11,14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 17, 2008 has been entered.

2. Claims 1-2, 4, 6, 10-11, 14-21, 23-34 are pending. Claims 23-34 are withdrawn from consideration as being drawn to nonelected claims.

3. Claims 1-2, 6, 10-11, 15, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinlein et al. (4,093,417), hereinafter "Heinlein".

Heinlein teaches a method for washing textile material including first prewashing the textile material in an acid wash solution having a pH below 6.5 whereby incrustations remaining on the textile material formed in a previous main wash cycle are dissolved in the prewash cycle and then washing the material in a main wash cycle with a phosphate-free alkaline liquor whereby incrustation form on the textile material for removal during a second prewash cycle (see abstract). The pH values of the acid prewash can attain values of 2 or less (see col. 3, lines 20-23). The prewash acid detergent is used only in the first 1-3 minutes of the prewash cycle and then adding the alkaline main detergent to the prewash cycle (see col. 4, lines 60-66; col. 5, lines 50-

55). In commercial laundries the washing time determines the profitability, and here it may be of advantage to wet the dirty wash at first neutral or even slightly alkaline in order to saturate the fibers and protein stains, and the carbonate incrustations on the fiber surface are subsequently reliably dissolved in a short (1-3 minutes) acid bath (see col. 5, lines 15-21). After the textile material has been dipped into the preliminary bath, it is brought into the first main wash cycle (see col. 5, lines 11-14), which main cycle is alkaline as described above (i.e. in the abstract). Bleaching agents can also be used without any difficulties, like sodium perborate, and of particular advantage is the addition of sodium percarbonate to the detergent of the main wash cycle, wherein this bleaching agent enhances the formation of readily soluble carbonate incrustations on the material to be treated (see col. 4, lines 35-41; claim 11). The customary brighteners as well as perfumes can also be used (see col. 4, lines 42-46). It is also possible to mix the sodium bisulfate (acidification agent) with 5% percarbonate or perborate, and the powder obtained has the additional advantage of oxygen bleaching during the saturation or wetting process (see col. 27-31). The acid prewash detergent may contain an alkaline solution in microcapsulated form (see col. 6, lines 24-25). The main wash cycle detergent comprises mainly soda, and preferably nonionic or anionic substances, also soap, if desired (see col. 2, line 66 to col. 3, line 15). The wash liquor of the first main wash cycle is the first wash liquid flowing from the machine into the drain (see col. 7, lines 21-23). Heinlein, however, fails to specifically disclose washing the laundry with alkaline for removal of soil, thereafter with an acid, then alkaline.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the steps of washing the laundry with alkaline, thereafter with an acid, then alkaline because Heinlein teaches in col. 5, lines 15-21 that in commercial laundries it may be of advantage to wet the dirty wash at first slightly alkaline in order to saturate the fibers and protein stains prior to the acid bath, then it is brought into the first main alkaline wash cycle as disclosed in col. 5, lines 11-14, and to reasonably expect the "wetting" step to likewise remove at least some soil from the laundry, considering the action of the alkaline solution on the soiled fabric.

4. Claims 1-2, 4, 6, 10, 15, 20 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lindner et al. (US Patent No. 3,131,991), hereinafter "Lindner", for the reasons set forth in the previous office action, and which is repeated below for Applicants' convenience.

Lindner teaches a process for washing and bleaching articles in a washing medium which comprises applying to the article to be treated liquid water-containing concentrate in the form of (a) an acid component concentrate having an acid stabilized active oxygen-containing compound and an acid-stable organic washing agent in aqueous acid medium, (b) an alkaline component concentrate having an alkaline-stable organic washing agent and an alkaline reacting compound in aqueous alkaline medium, the amount of alkaline reacting compound being adjusted to render the overall washing medium formed of sufficient pH for effecting the washing and bleaching treatment (see claim 1), wherein the alkaline component liquid water-containing concentrate is added

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to the washing medium for the article to be treated prior to the adding of the acid component liquid water-containing concentrate (see claim 17; col. 2, lines 66-69). The acid and alkaline concentrates may be introduced into the wash water in any desired ordinal sequence (see col. 7, lines 8-15). After the washing machine has been loaded with the washing material (laundry) and the required quantity of water added, the packet containing the alkali liquid concentrate is emptied into the drum, whereupon after a few revolutions of the drum, the acid liquid concentrate is emptied from the other packet into the washing liquid (see col. 7, lines 49-55). It is understood that the washing machine has draining and rinsing steps. The alkaline reacting compound of the alkaline component concentrate is suitably an alkali, such as caustic alkali, alkali carbonate or alkali meta-silicate (see col. 2, lines 49-53). The acid concentrate will preferably possess pH values between 2.5 and 5 whereas the alkaline concentrate will be maintained such that the acid constituents will be effectively neutralized (see col. 3, lines 35-39), i.e., pH between 7.5 and 11 (see col. 2, lines 54-58; col. 3, lines 18-19). The acid component concentrate is made up of per-compounds such as for example concentrated aqueous hydrogen peroxide solution, or adducts of hydrogen peroxide with alkali borates, alkali carbonates, and the like, and the concentrate further contain organic wash actives of the nonionic and/or anionic type (see col. 3, lines 45-62). The acid and/or alkaline concentrates may be separately charged with various other conventional ingredients useful in washing procedures, for example, disinfecting agents, optical brighteners, perfumes, etc. (see col. 4, lines 59-68). Lindner, however, fails to

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specifically disclose the steps of washing the laundry with alkaline, thereafter with an acid, then alkaline.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the steps of washing the laundry with alkaline, thereafter with an acid, then alkaline because Lindner teaches in claim 17 and col. 2, lines 66-69 that the alkaline component liquid water-containing concentrate is added to the washing medium for the article to be treated prior to the adding of the acid component liquid water-containing concentrate, and that the acid and alkaline concentrates may be introduced into the wash water in any desired ordinal sequence as disclosed in col. 7, lines 8-15.

5. Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Heinlein or Lindner as applied to the above claims, and further in view of Werdehausen et al. (US Patent No. 3,718,597), hereinafter Werdehausen, for the reasons set forth in the previous office action and which is repeated below for Applicants' convenience.

Heinlein or Lindner teaches the features as described above. Heinlein or Lindner, however, fails to disclose a halogen bleach like chlorinated trisodium phosphate or sodium hypochlorite.

Werdehausen teaches the equivalency of alkali metal perborates and percarbonates with chlorinated trisodium phosphate or alkali metal hypochlorite as bleaching agents in a similar method (see claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the perborates or percarbonates of Heinlein or Lindner with chlorinated trisodium phosphate or alkali metal hypochlorite because the substitution of art recognized equivalents as shown by Werdehausen is within the level of ordinary skill in the art.

6. Claims 16-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Heinlein or Lindner as applied to the above claims, and further in view of Barnes (US Patent No. 4,988,363) for the reasons set forth in the previous office action and which is repeated below for Applicants' convenience.

Heinlein or Lindner teaches the features as described above. Heinlein or Lindner, however, fails to specifically disclose peroxyacids like peroxyoctanoic acid, or an activator.

Barnes, an analogous art, teaches the equivalency of perborates or percarbonates with organic peroxyacids (which are also activators), which include peroxyoctanoic acid, as bleaching agents (see col. 6, lines 30-35; see col. 5, lines 43-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the perborate or percarbonate of Heinlein or Lindner with organic peroxyacids like peroxyoctanoic acid because the substitution of art recognized equivalents as shown by Barnes is within the level of ordinary skill in the art.

7. Claims 1-2, 6, 10, 11, 14, 15, 16, 19, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKechnie et al. (WO 02/06434), hereinafter "McKechnie".

McKechnie teaches cleaning compositions and their use, wherein the compositions contain components for a pH step reaction, and the compositions undergo a change in pH at the locus, promoting effective cleaning (see abstract). Preferably the pH change takes place after an induction period (that is, an interval after exposure of the composition to the locus) of at least 10 seconds, more preferably at least 20 seconds, especially at least 100 seconds and is not more than 12 hours, preferably not more than 1200 seconds (see page 2, lines 20-30). The term "cleaning" includes removal of soil deposits, bleaching and combating microbes, or is antimicrobial (see page 4, lines 19-32). An antimicrobial effect is generated preferably in situ by the reaction which changes the pH, and therefore with some delay, and the antimicrobial chemical may, for example, comprise an iodate, bromate, thiocyanate or chlorate (see page 4, line 26 to page 5, line 3). The composition preferably produces a bleaching effect which is preferably produced in situ by the reaction which changes the pH and may include sodium chlorite generating components, for example, under acid conditions, sodium hydroxide and chlorine dioxide (see page 5, lines 5-16), or hydrogen peroxide or a precursor thereof (see page 5, lines 18-20). An example of a precursor of hydrogen peroxide is cyclodextrin complexed with an organic peroxy acid, e-phthalimido peroxyhexanoic acid (see page 14, lines 8-14). The composition may include one or more surfactants (see page 5, lines 22-26). The composition may be such that after one

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pH change the pH may change in the reverse direction, for example a composition may go from acidic to alkaline and back to acidic, or from alkaline to acidic and back to alkaline, and that each pH change preferably takes place over an induction period as defined above (see page 10, line 29 to page 11, line 3). Preferably the composition may contain components which provide an abrupt pH step (see page 11, lines 25-26), and a typical pH step system involves an oxidant and a reductant (see page 12, lines 1-2), which read on “activators”. The cleaning compositions may be used, for example, for textile materials, including carpets and clothes, and may be used in clothes washing compositions (see page 14, line 30 to page 15, line 1). It is understood that in clothes washing, the washing machine has draining and rinsing steps. The change of pH may, for example, initiate the dissolution of the coating of a washing tablet or of an insert product contained within a washing tablet, providing in each case delayed release of the contents (see page 15, lines 1-5). The compositions also comprise fragrance (see page 38, line 21 and page 39, line 24). McKechnie, however, fails to specifically disclose the step of washing the laundry at an alkaline pH and thereafter treating the laundry at a pH from about 1 to about 4 and thereafter at a pH from about 8 to about 11, and draining step.

It would have been obvious to one of ordinary skill in the art at the time the invention was made have used the cleaning compositions of McKechnie for washing clothes, as disclosed on page 4, line 30 to page 15, line 1, in a laundry washing machine, and select a composition which would have a pH change from alkaline to

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acidic and back to alkaline as disclosed on page 10, line 29 to page 11, line 3, because the teachings of McKechnie encompass these aspects to promote effective cleaning.

8. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKechnie as applied to the above claims, and further in view of Barnes (US Patent No. 4,988,363).

McKechnie teaches the features as described above. McKechnie, however, fails to specifically disclose peroxyacids like peroxyoctanoic acid.

Barnes, an analogous art, teaches other organic peroxyacids which include peroxyoctanoic acid, as bleaching agents (see col. 6, lines 30-35; see col. 5, lines 43-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the peroxy acid of McKechnie with peroxyoctanoic acid because McKechnie specifically desires an organic peroxy acid and Barnes teaches such acid like peroxyoctanoic acid for bleaching.

Response to Arguments

9. Applicants' arguments filed November 17, 2008 have been fully considered but they are not persuasive.

With respect to the rejection based upon Heinlein, Applicants argue that "wetting the dirty wash" as disclosed by Heinlein is not the same as the wash step of the present invention, as soil removal in Heinlein does not occur until during a later acid wash, nor

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does Heinlein disclose that the “wetting” of the dirty wash takes place in a laundry washing machine, rather, Heinlein discloses dipping the textile material in a bath for “saturation or wetting”, see Heinlein, col. 5, lines 5-10. Applicants then argue that dipping a textile in a bath containing the pre-wash material is not the same as washing the textile in a laundry machine for the removal of soil. Applicants also argue that the second step of the presently claimed invention does not require two separate formulations to achieve an acid wash and an alkaline wash after the initial wash step, rather, the pH adjusting agent in step (b) adjusts the pH to achieve both bleaching and antimicrobial effects.

The Examiner respectfully disagrees with the above arguments because the “wetting of the dirty wash at first slightly alkaline in order to saturate the fibers and protein stains” as disclosed in col. 5, lines 15-21 of Heinlein still reads on step (a) of the present claim 1, because as stated in the previous office action, the term “wash” in the dictionary means “wet thoroughly” or “saturate”, hence, the teaching of Heinlein above, reads on the “washing the laundry” step (a) of the present claim 1. With respect to the limitation “for removal of soil from the laundry”, as stated in paragraph 3 above, the wetting action of the alkaline solution on the soiled fabric would cause at least some soil to be removed from said fabric.

With respect to Applicants’ argument that Heinlein does not disclose the “wetting” of the dirty wash in a laundry washing machine, please note that in col. 1, lines 12-16, Heinlein teaches that in commercial laundries, as well as households, fabrics and linen are usually washed in washing machines according to a method that can be subdivided

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at least into one pre-wash cycle, one main wash cycle and one or more rinse cycles. In col. 5, lines 5-14, the preliminary bath containing the prewash solution, corresponds to the pre-wash cycle mentioned in col. 1, lines 12-16, as discussed earlier, because when the textile is dipped for saturation or wetting, the liquid of the preliminary bath is brought to the original composition merely by adding the substance forming the prewash solution (i.e., acid wash liquor), the textile is brought directly to the first main wash cycle.

With respect to Applicants' argument regarding Heinlein not teaching or suggesting a single composition applied to laundry after it has been washed, wherein the composition has both antimicrobial and bleaching properties, please note that the present claims' "laundry treatment composition comprising a bleaching/antimicrobial agent..." is not limited to a "single composition". The claim is open to the inclusion of other components as evidenced by the "comprising" language in the above phrase.

With respect to the rejection based upon Lindner, Applicants argue that Lindner does not teach washing laundry with a detergent use solution at an alkaline pH for the removal of soil, followed by application of a single laundry treatment composition that has both bleaching and antimicrobial properties depending on the pH of the composition.

The Examiner respectfully disagrees with the above arguments because in col. 2, line 70 to col. 3, line 3, Lindner teaches that the alkaline component liquid water-containing concentrate may be applied to the article to be treated in the washing medium, and after a suitable prewashing treatment, the acid component liquid water-

containing concentrate may be added, and in col. 7, lines 8-16, Lindner also teaches that the acid and alkaline concentrates are introduced into the wash water in any desired ordinal sequence depending upon the stability of the clothing or laundry to the particular concentrates. With respect to Applicants' argument regarding "application of a single laundry treatment composition", as stated in Heinlein above, please note that the present claims' "laundry treatment composition comprising a bleaching/antimicrobial agent..." is not limited to a "single composition". The claim is open to the inclusion of other components as evidenced by the "comprising" language in the above phrase.

With respect to the rejection of claim 14 under § 103(a) as unpatentable over Heinlein or Lindner in view of Werdehausen; claims 16-19 under § 103(a) as unpatentable over Heinlein or Lindner in view of Barnes, Applicants argue that these claims ultimately depend from independent claim 1, and Applicants believe that claim 1 is patentable in light of the prior art of record for the reasons discussed above, and that the combinations of Heinlein, Lindner, Werdehausen or Barnes do not remedy the shortcomings of the prior art identified above.

The responses to Heinlen and Lindner above apply here as well. Hence, the rejections over Heinlein or Lindner, in view of Werdehausen or Barnes are maintained.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered cumulative to or less material than those discussed above.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is 571-272-1313. The examiner can normally be reached on Mondays-Fridays 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lorna M Douyon/
Primary Examiner, Art Unit 1796

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